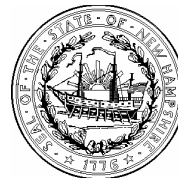


STATE OF NEW HAMPSHIRE  
Department of Environmental Services  
Air Resources Division

Form  
ARD-2



**Information Required for Permits for Fuel Burning Devices**

**I. EQUIPMENT INFORMATION** – *Complete a separate form for each device.*

**Device Description:** \_\_\_\_\_  
**Date Construction** \_\_\_\_\_  
**Commenced:** \_\_\_\_\_ **Device Start-Up Date:** \_\_\_\_\_

**A. Boiler** ☐ **Not Applicable**

Boiler Manufacturer	Boiler Model Number
Boiler Serial Number	Gross Heat Input Nameplate Rating (MMBtu/hr)
Burner Manufacturer	Burner Model Number <input type="checkbox"/> gal/hr <input type="checkbox"/> mmcf/hr <input type="checkbox"/> ton/hr
Burner Serial Number	Potential Fuel Flow Rate

**1. Type of Burner:**

**a. Solid Fuel:**

- ☐ Cyclone  
☐ Pulverized (☐ wet ☐ dry)  
☐ Spreader Stoker  
☐ Underfeed Stoker  
☐ Overfeed Stoker  
☐ Hand-Fired  
☐ Fly Ash Re-injection  
☐ Other (specify): \_\_\_\_\_

**b. Liquid Fuel:**

- ☐ Pressure Gun  
☐ Rotary Cup  
☐ Steam Atomization  
☐ Air Atomization  
☐ Other (specify): \_\_\_\_\_

**c. Gaseous Fuel:**

- ☐ Natural Gas  
☐ Propane  
☐ Other (specify): \_\_\_\_\_

**2. Combustion Type:**

- ☐ Tangential Firing ☐ Opposite End Firing ☐ Limited Excess Firing ☐ Flue Gas Recirculation  
☐ Staged Combustion ☐ Biased Firing ☐ One End Only Firing  
☐ Other (specify): \_\_\_\_\_

**B. Internal Combustion Engines/Combustion Turbines** ☐ **Not Applicable**

Manufacturer	Model Number <input type="checkbox"/> gal/hr <input type="checkbox"/> mmcf/hr
Serial Number	Fuel Flow Rate
Engine Output Rating <input type="checkbox"/> hp <input type="checkbox"/> kW	Reason for Engine Use

### C. Stack Information

Is unit equipped with multiple stacks? ☐ Yes ☐ No (if yes, provide data for each stack)

Identify other devices on this stack: \_\_\_\_\_

Is Section 123 of the Clean Air Act applicable? ☐ Yes ☐ No

Is stack monitoring used? ☐ Yes ☐ No

If yes, Describe: \_\_\_\_\_

Is stack capped or otherwise restricted? ☐ Yes ☐ No

If yes, Describe: \_\_\_\_\_

Stack exit orientation: ☐ Vertical ☐ Horizontal ☐ Downward

Stack ☐ Inside Diameter (ft) ☐ Exit Area (ft<sup>2</sup>)

Discharge height above ground level (ft)

Exhaust Flow (acfm)

Exhaust Velocity (ft/sec)

Exhaust Temperature (°F)

## II. OPERATIONAL INFORMATION

### A. Fuel Usage Information

#### 1. Fuel Supplier:

Supplier's Name

Street

Town/City State Zip Code

Telephone Number

#### 2. Fuel Additives:

Manufacturer's Name

Street

Town/City State Zip Code

Telephone Number

Identification of Additive

Consumption Rate (gallons per 1000 gallons of fuel)

#### 3. Fuel Information (List each fuel utilized by this device):

Type	% Sulfur	% Ash	% Moisture (solid fuels only)	Heat Rating (specify units)	Potential Heat Input (MMBtu/hr)	Actual Annual Usage (specify units)

### B. Hours of Operation

Hours per day: \_\_\_\_\_ Days per year: \_\_\_\_\_

**III. POLLUTION CONTROL EQUIPMENT** ☐ **Not Applicable**

**A. Type of Equipment** *Note: if process utilizes more than one control device, provide data for each device*

- |   |   |
|---|---|
| <input type="checkbox"/> baffled settling chamber               | <input type="checkbox"/> wide bodied cyclone                  |
| <input type="checkbox"/> long cone cyclone                      | <input type="checkbox"/> irrigated long cone cyclone          |
| <input type="checkbox"/> multiple cyclone (_____ inch diameter) | <input type="checkbox"/> carbon absorption                    |
| <input type="checkbox"/> electrostatic precipitator             | <input type="checkbox"/> irrigated electrostatic precipitator |
| <input type="checkbox"/> spray tower                            | <input type="checkbox"/> absorption tower                     |
| <input type="checkbox"/> venturi scrubber                       | <input type="checkbox"/> baghouse                             |
| <input type="checkbox"/> afterburners (incineration)            | <input type="checkbox"/> packed tower/column                  |
| <input type="checkbox"/> selective catalytic reduction          | <input type="checkbox"/> selective non-catalytic reduction    |
| <input type="checkbox"/> reburn                                 |   |
| <input type="checkbox"/> other (specify): _____                 |   |

**B. Pollutant Input Information**

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)

Method used to determine entering emissions:

- ☐ stack test   
☐ vendor data   
☐ emission factor   
☐ material balance  
☐ other  
(specify): \_\_\_\_\_

**C. Operating Data**

1. Capture Efficiency: \_\_\_\_\_%    Verified by: ☐ test    ☐ calculations  
2. Control Efficiency: \_\_\_\_\_%    Verified by: ☐ test    ☐ calculations  
3. Normal Operating Conditions (*supply the following data as applicable*)

_____	_____	_____
Total gas volume through unit (acfm)	Temperature (°F)	Percent Carbon Dioxide (CO <sub>2</sub> )
_____	_____	_____
Voltage	Spark Rate	Milliamps
_____	_____	
Pressure Drop (inches of water)	Liquid Recycle Rate (gallons per minute)	

**IV. DEVICE EMISSIONS DATA:**

<b>Pollutant</b>	<b>Temperature (°F)</b>	<b>Actual (lb/hr)</b>	<b>Potential (lb/hr)</b>	<b>Actual (ton/yr)</b>	<b>Potential (ton/yr)</b>

Method used to determine exiting emissions:

☐ stack test    ☐ vendor data    ☐ emission factor    ☐ material balance

☐ other (specify): \_\_\_\_\_